EXPERIMENTAL CELL RESEARCH

EDITOR-IN-CHIEF
N. RINGERTZ

ASSISTANT EDITOR
S. ERIKSSON

EDITORS
R. BASERGA · H. M. BLAU · M. BUSTIN · B. CANNON · E. DE ROBERTIS · D. EPEL
W. W. FRANKE · S. J. KAUFMAN · N. LE DOUARIN · G. MAGNUSSON · D. MAZIA
. MELDOLESI · G. L. NICOLSON · B. ÖBRINK · I. PASTAN · D. M. PRESCOTT · R. ROSS · E. ROZENGURT
F. H. RUDDLE · R. SAGER · U. SCHEER · R. TIMPL · K. WEBER · A. M. ZIMMERMAN

FOUNDING EDITORS
T. CASPERSSON and J. RUNNSTRÖM

VOLUME 177 · 1988

ACADEMIC PRESS, INC.
Harcourt Brace Jovanovich, Publishers
San Diego New York Boston
London Sydney Tokyo Toronto

COPYRIGHT © 1988 BY ACADEMIC PRESS, INC.

All Rights Reserved

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the copyright owner.

The appearance of the code at the bottom of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made for personal or internal use, or for the personal or internal use of specific clients. This consent is given on the condition, however, that the copier pay the stated per copy fee through the Copyright Clearance Center, Inc. (27 Congress Street, Salem, Massachusetts 01970), for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. Copy fees for pre-1988 articles are as shown on the article title pages; if no fee code appears on the title page, the copy fee is the same as for current articles.

0014-4827/88 $3.00

Printed in Sweden by

Almqvist & Wiksell Tryckeri, Uppsala 1988

CONTENTS OF VOLUME 177

NUMBER 1, JULY 1988

REGULAR ARTICLES

T. Banchev, L. Srebreva, J. Zlatanova, and R. Tsanev. Immunofluorescent Localization of Histone $H1_0$ in the Nuclei of Proliferating and Differentiating Friend Cells 1

A. V. Flannery and R. S. Hill. The Effect of Heat Shock on the Morphology of Amphibian Lampbrush Chromosomes 9

Gary W. Zieve and Elizabeth J. Roemer. Cordycepin Rapidly Collapses the Intermediate Filament Networks into Juxtanuclear Caps in Fibroblasts and Epidermal Cells 19

Jacques Pairault, Annie Quignard-Boulange, Isabelle Dugail, and Françoise Lasnier. Differential Effects of Retinoic Acid upon Early and Late Events in Adipose Conversion of 3T3 Preadipocytes 27

Jacob Hochman, Nurith Mador, Israel Gloger, Haya Falk, and Amos Panet. Isolation and Characterization of Interferon-Resistant Variants from S49 Mouse Lymphoma 37

Barbara A. Danowski and Albert K. Harris. Changes in Fibroblast Contractility, Morphology, and Adhesion in Response to a Phorbol Ester Tumor Promoter 47

Ortwin Faff, Richard Mitreiter, Harald Mückter, Yehuda Ben-Shaul, and Adelbert Bacher. Rapid Formation of Tight Junctions in HT 29 Human Adenocarcinoma Cells by Hypertonic Salt Solutions 60

E. Puvion, A. Duthu, F. Harper, J. C. Ehrhart, A. Viron, and P. May. Intranuclear Distribution of SV40 Large T-Antigen and Transformation-Related Protein p53 in Abortively Infected Cells 73

William B. Stallcup. Involvement of Gangliosides and Glycoprotein Fibronectin Receptors in Cellular Adhesion to Fibronectin 90

Jacques P. M. Schellens, Helena Vreeling-Sindelárová, Peter J. A. M. Plomp, and Alfred J. Meijer. Hepatic Autophagy and Intracellular ATP. *A Morphometric Study* 103

Sheldon M. Campbell, Mokhtar M. Taha, Daniel Medina, and Jeffrey M. Rosen. A Clonal Derivative of Mammary Epithelial Cell Line COMMA-D Retains Stem Cell Characteristics of Unique Morphological and Functional Heterogeneity 109

Minoru Yoshida and Teruhiko Beppu. Reversible Arrest of Proliferation of Rat 3Y1 Fibroblasts in Both the G1 and G2 Phases by Trichostatin A 122

Eileen Fingerman and Martin E. Hemler. Regulation of Proteins in the VLA Cell Substrate Adhesion Family: Influence of Cell Growth Conditions on VLA-1, VLA-2, and VLA-3 Expression 132

G. Gilson, J. P. Ebel, and P. Remy. Is Ap_4A Involved in DNA Repair Processes? 143

M. Jesús Otero and Luis Carrasco. Exogenous Phospholipase C Permeabilizes Mammalian Cells to Proteins 154

Carolyn L. Jahn. *Bal* 31 Sensitivity of Micronuclear Sequences Homologous to C_4A_4/G_4T_4 Repeats in *Oxytricha nova* 162

J. E. Celis, J. B. Lauridsen, and Bodil Basse. Cell Cycle-Associated Change in the Expression of the Proliferation-Sensitive and Heat-Shock Protein hs×70 (IEF14): Increased Synthesis during Mitosis 176

Lena Dillner, Ken Dickerson, Marston Manthorpe, Erkki Ruoslahti, and Eva Engvall. The Neurite-Promoting Domain of Human Laminin Promotes Attachment and Induces Characteristic Morphology in Non-neuronal Cells 186

SHORT NOTES

J. Lahav. Thrombospondin Inhibits Adhesion of Endothelial Cells 199

Brian Dale. Primary and Secondary Messengers in the Activation of Ascidian Eggs 205

Monique Breton, Eliane Berrou, Elisabeth Deudon, Marie-Christine Brahimi-Horn, and Jacques Picard. Effect of Insulin on Sulfated Proteoglycan Synthesis in Cultured Smooth Muscle Cells from Pig Aorta 212

Gretchen A. Rice, Nancy A. Touchette, Angela N. H. Creager, Jonathan Goldberg, and R. David Cole. A High Melting Structure in DNA Distinguishes Phases of the Cell Cycle . 221

Tatsuji Haneji and S. S. Koide. Protein Phosphorylation during 5-Hydroxytryptamine-Induced Maturation of *Spisula* Oocytes 227

Susan A. Bayley, Amanda J. Stones, and Colin G. Smith. Immortalization of Rat Keratinocytes by Transfection with Polyomavirus Large T Gene 232

NUMBER 2, AUGUST 1988

REGULAR ARTICLES

Mary F. D. Notter. Selective Attachment of Neural Cells to Specific Substrates Including Cell-Tak, a New Cellular Adhesive 237

Alison I. Morrison, Stella Keeble, and Fiona M. Watt. The Peanut Lectin-Binding Glycoproteins of Human Epidermal Keratinocytes 247

G. A. M. Berbers, R. Kunnen, P. M. P. van Bergen en Henegouwen, and R. van Wijk. Localization and Quantitation of hsp84 in Mammalian Cells 257

A. Woods, S. Johansson, and M. Höök. Fibronectin Fibril Formation Involves Cell Interactions with Two Fibronectin Domains 272

REUBEN LOTAN, DAFNA LOTAN, AND BRAD AMOS. Enhancement of Sialyltransferase in Two Melanoma Cell Lines That Are Growth-Inhibited by Retinoic Acid Results in Increased Sialylation of Different Cell-Surface Glycoproteins 284
KARIN MÜLLER-DECKER, CLEMENS DOPPLER, EBERHARD AMTMANN, AND GERHARD SAUER. Interruption of Growth Signal Transduction by an Antiviral and Antitumoral Xanthate Compound 295
P. J. BROWN AND R. L. JULIANO. Monoclonal Antibodies to Distinctive Epitopes on the α and β Subunits of the Fibronectin Receptor 303
NÉDIA KAMECH AND ROLAND SEIF. Evidence for New Cellular Proteins Which May Negatively Control DNA Replication or Cell Growth in Rat 3T3 Fibroblasts 319
W. NIJHOF AND P. K. WIERENGA. Biogenesis of the Red Cell Membrane and Cytoskeletal Proteins during Erythropoiesis *in Vitro* 329
CHI-HUNG SIU AND TAK YEE LAM. Mediation of Cell–Cell Adhesion by the Altered Contact Site A Glycoprotein Expressed in *mod*B Mutants of *Dictyostelium discoideum* 338
KARIN MELLSTRÖM, CARL-HENRIK HELDIN, AND BENGT WESTERMARK. Induction of Circular Membrane Ruffling on Human Fibroblasts by Platelet-Derived Growth Factor 347
TOKIKO NAKAYAMA, KIMIKO NISHIZAWA, AND CHICAKO SATO. Reversible cAMP-Induced Translocation of Cytoskeleton-Associated 300- to 350-kDa Proteins from Nucleus to Cytoplasm . . . 360
FRANÇOISE HILLIOU, JACQUES PAIRAULT, JOCELYNE DOMINICE, AND GÉRARD REDZINIAK. Growth and Differentiation of 3T3-F442A Preadipocytes in Three-Dimensional Gels of Native Collagen . . 372
R. L. EVANS, C. R. MCCROHAN, AND R. D. BUTLER. Tentacle Contraction in *Heliophrya erhardi* (Suctoria): The Role of Inositol Phospholipid Metabolites and Cyclic Nucleotides in Stimulus–Response Coupling 382
J. M. F. G. AERTS, J. HEIKOOP, S. VAN WEELY, W. E. DONKER-KOOPMAN, J. A. BARRANGER, J. M. TAGER, AND A. W. SCHRAM. Characterization of Glucocerebrosidase in Peripheral Blood Cells and Cultured Blastoid Cells 391
SUSAN A. MOORE, CESAR V. GARCIA, BART T. GARDNER, AND GEOFFREY A. LESTER. Automated Spectrophotometric Assay for Cell Division Regulation in Yeast 399
SARAH SPIEGEL AND CATHERINE PANAGIOTOPOULOS. Mitogenesis of 3T3 Fibroblasts Induced by Endogenous Ganglioside Is Not Mediated by cAMP, Protein Kinase C, or Phosphoinositides Turnover 414
AUTHOR INDEX FOR VOLUME 177 428

The Subject Index for Volume 177 will appear in the December 1988 issue as part of a cumulative index for the year 1988.